

Risk Management Program Training

40 CFR Part 68



June 26-28, 2007

Richland, WA

Today's Objective

- Understand the importance of the Risk Management Program and your Facility's Safety Culture
- Understand what elements are required under the Risk Management Program



Today's Agenda

8:00	Welcome and Overview
	Management
	Hazard Assessment
	Process Safety Information
	PHA/HA
	Operating Procedures
10:00	Break
	Training
	Mechanical Integrity
	Management of Change and Prestartup safety review
11:30	Lunch
	CSB Video
	Compliance Audits
	Incident Investigations
	Employee Participation
2:00	Break
	Emergency Response
	Resubmital of RMP using RMP*Submit and corrections using RMP*RC
	EPCRA
4:30	Goodbye

Reason for Risk Management Program

Bhopal, India 1984
Union Carbide factory



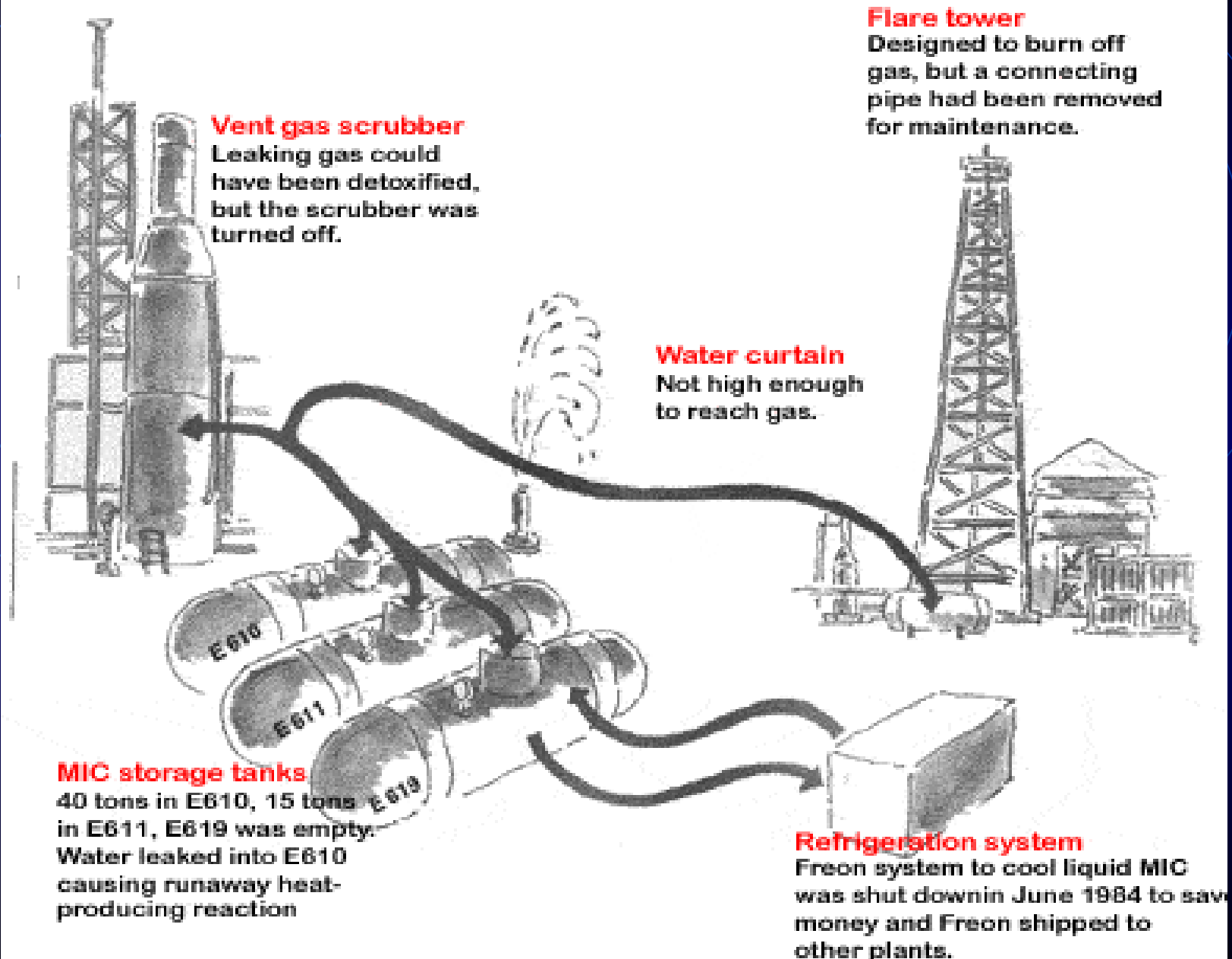


Reason for Program cont.



20 km² poisonous cloud
killed 16,000

Reason for Program cont.



Purpose of Risk Management Program



- Prevent or minimize the consequences of catastrophic releases of toxic, reactive, flammable, or explosive chemicals

Importance of Safety Culture



The UK Health & Safety Executive defines safety culture as “... the product of the individual and group values, attitudes, competencies and patterns of behavior that determine the commitment to, and the style and proficiency of, an organization's health and safety programs.”

March 2005, Texas City, Texas oil refinery explosion

Subjectivity to Program

- Stationary Source in a Single Process
- Listed of Regulated Substance
- Threshold Quantities
 - 63 Flammables
 - 77 Toxic Substances



List of Lists at:

<http://yosemite.epa.gov/oswer/ceppoweb.nsf/content/chemicals.htm>



Program Level

Program 1

- No history of offsite accidents
- No public receptors
- ER coordinated w/ local emergency organizations

Program 2

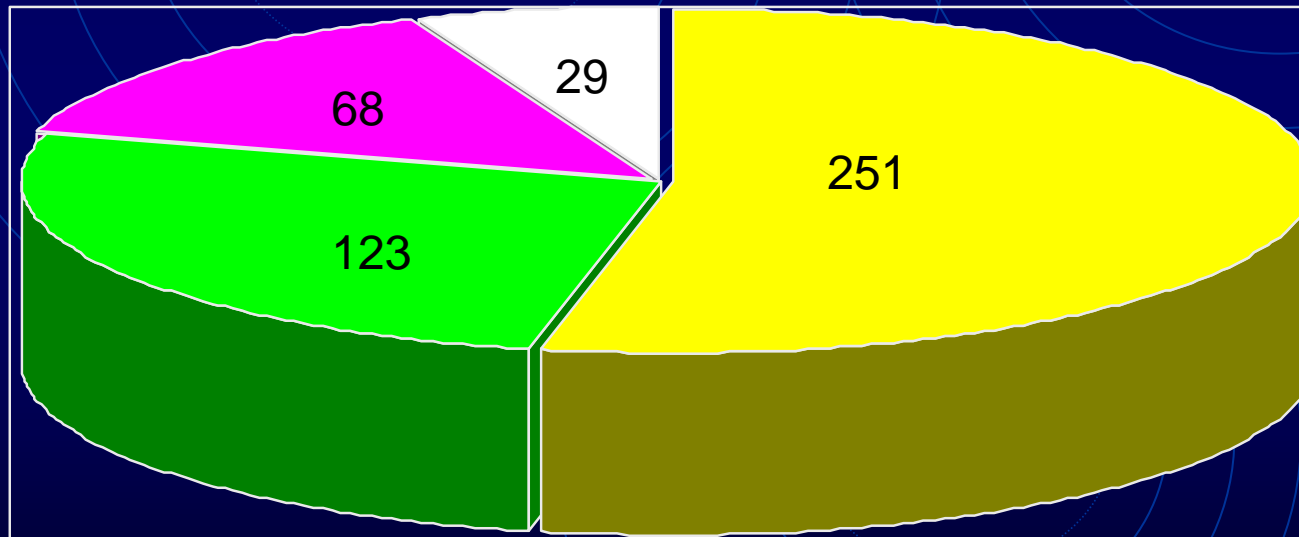
- Not eligible for Program 1 or 3
- Bulk storage and distribution of chemicals, fertilizer wholesalers, frozen and dehydrated food manuf

Program 3

- Industries subject to OSHA Process Safety Management
- Complex processes –NH₃ refrigeration, refineries, pulp & paper mills, fertilizer manuf, industrial gas manuf, WTP/WWTPs

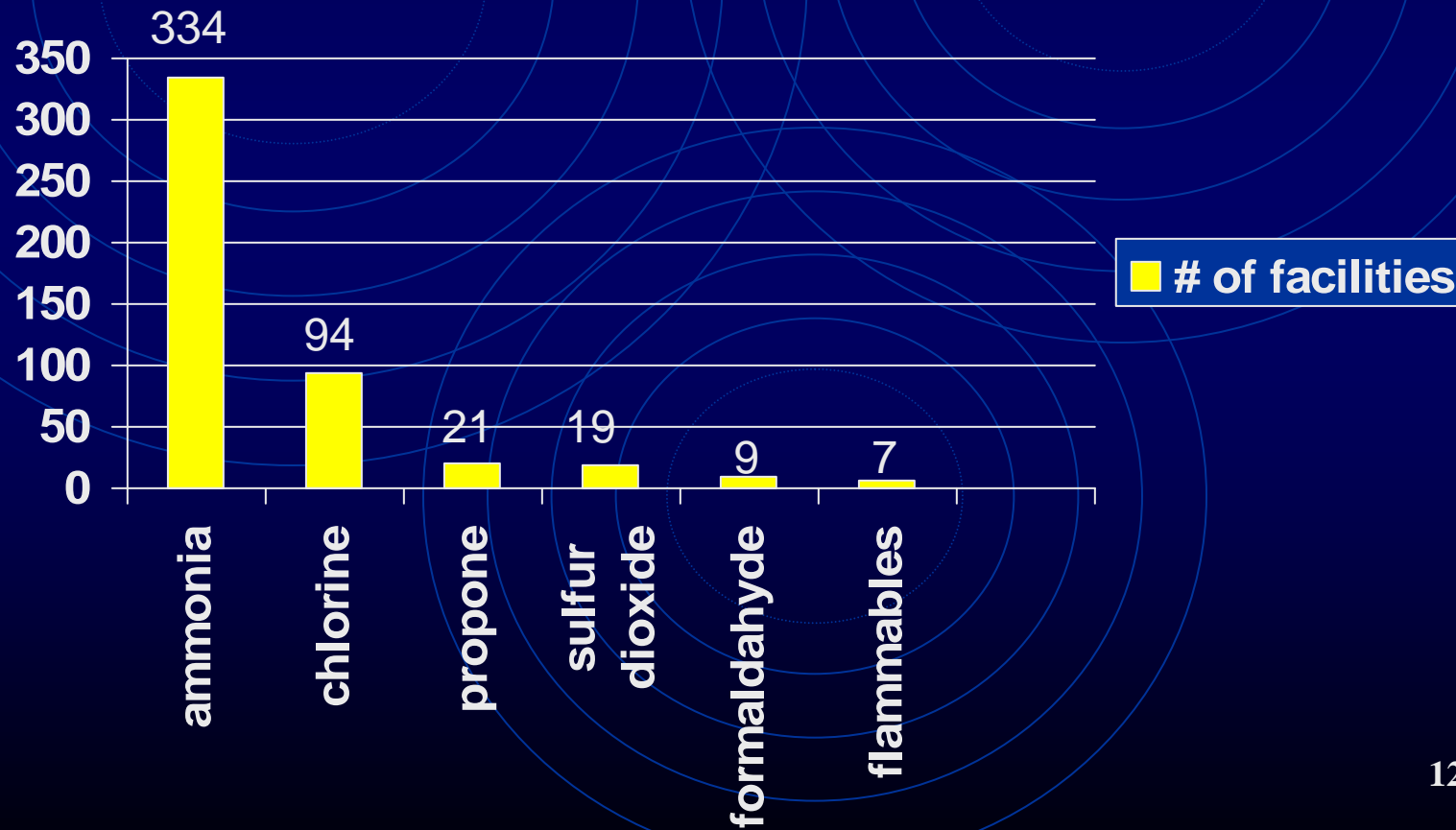
Program Universe

Region 10 - 471 covered facilities



Program Universe

of Hazardous Chemical Facilities





Exemptions to Program

- Farmers using ammonia fertilizer
- Flammable substances used as fuel or held for sale as a fuel at a retail facility
- Chemicals in transportation, including storage incident to transportation
- Naturally occurring hydrocarbon mixtures prior to entering a processing plant
- Laboratory chemicals

General Duty Clause



Section 112(r)(1) – General duty to identify, prevent the release of extremely hazardous substances, and minimize consequences, if a release were to occur”

Content of Program

Hazard Assessment - The potential worst-case and more probable accidental release scenario. 5 yr accident history.

Prevention Program – Safety precautions and maintenance, monitoring, and employee training measures

Emergency Response – health care, employee training measures and procedures for informing the public and response agencies





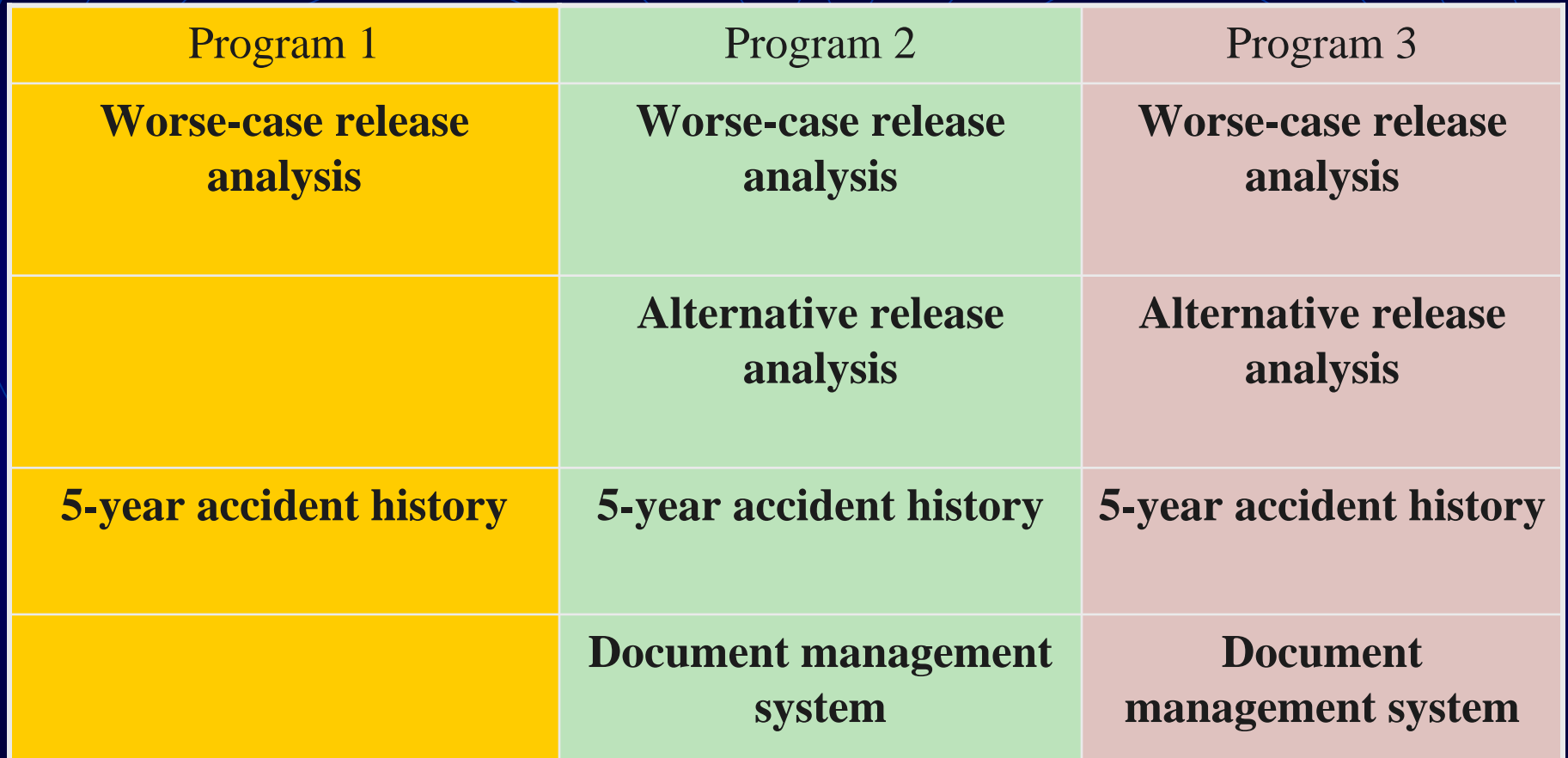
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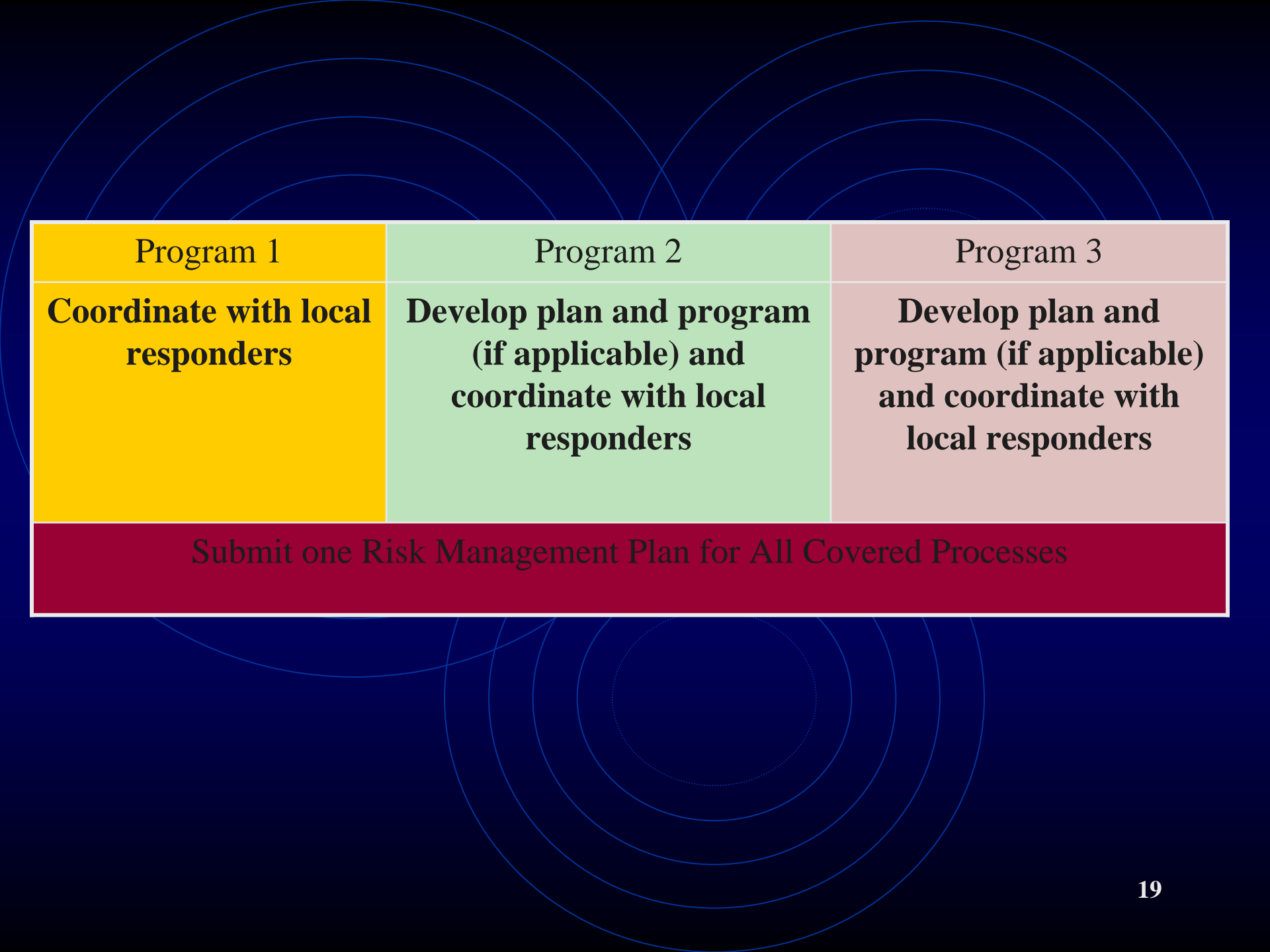
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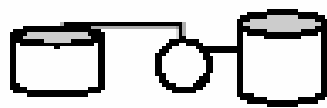
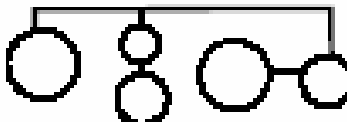

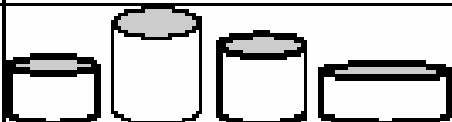


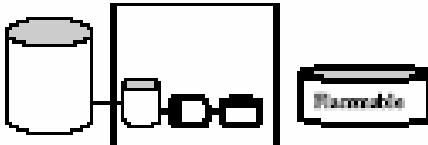




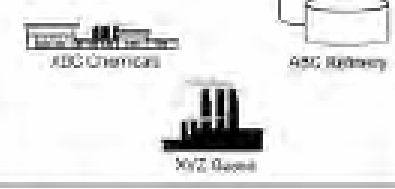



Program 1	Program 2	Program 3
Worse-case release analysis	Worse-case release analysis	Worse-case release analysis
	Alternative release analysis	Alternative release analysis
5-year accident history	5-year accident history	5-year accident history
	Document management system	Document management system

Program 1	Program 2	Program 3
Certify no additional prevention steps needed	Safety Information	Safety Information
	Hazard Review	Hazard Review
	Operating Procedures	Operating Procedures
	Training	Training
	Maintenance	Maintenance
	Incident Investigations	Incident Investigations
	Compliance Audit	Compliance Audit
		Management of Change
		Pre-Startup Review
		Contractors
		Employee Participation
		Hot Work Permits

The background of the slide features a dark blue field with several sets of concentric circles in a lighter blue color. These circles are centered at different points, creating a layered, ripple-like effect across the entire page.

Program 1	Program 2	Program 3
Coordinate with local responders	Develop plan and program (if applicable) and coordinate with local responders	Develop plan and program (if applicable) and coordinate with local responders
Submit one Risk Management Plan for All Covered Processes		

Schematic Representation	Description	Interpretation
	1 vessel 1 regulated substance above TQ	1 process
	2 or more connected vessels <i>same</i> regulated substance above TQ	1 process
	2 or more connected vessels <i>different</i> regulated substance each above TQ	1 process
	pipe line feeding multiple vessels total above TQ	1 process
	2 or more vessels co-located <i>same</i> substance total above TQ	1 process
	2 or more vessels co-located <i>different</i> substances each above TQ	1 process
	2 vessels, located so they won't be involved in a single release <i>same or different</i> substances each above TQ	2 processes
	2 locations with regulated substances each above TQ	1 or 2 processes depending on distance
	1 series of interconnected vessels <i>same or different</i> substances above TQs <i>plus</i> a co-located storage vessel containing flammables	1 process

Schematic Representation	Description	Interpretation
	same owner same industrial group	1 stationary source 1 RMP
	two owners	2 stationary sources 2 RMPs 1 ABC 1 XYZ
	two owners three industrial groups	3 stationary sources 1 ABC Chemicals 1 ABC Refinery 1 XYZ Gases
	two owners	2 stationary sources 2 RMPs
	same owner same industrial group contiguous property	1 stationary source 1 RMP
<p>Building owned by Brown Properties:</p> 	two owners	2 stationary sources 2 RMPs 1 ABC Chemicals 1 Farm Chemicals